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ABSTRACT

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CHALLENGES IN IMPLEMENTING A LICENSURE TESTING PROGRAM

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CHALLENGES IN IMPLEMENTING A LICENSURE TESTING PROGRAM

Abstract

Administering a large scale licensing examination program presents both technical and non-technical challenges. Five major areas are discussed in the paper: (1) Ensuring test validity in relation to occupational entry standards, (2) Developing test items from valid examination specifications, (3) Establishing legally defensible passing scores, (4) Implementing truth-in-testing legislation, and (5) Maintaining test security.

Examples of real-life solutions to problems are given. The competence of the test specialist is paramount to a regulatory agency's ability to meet its statutory mandates in licensure examinations. I believe that licensure examination programs are and will increasingly be held accountable for administering truly equivalent test forms that conform to publicly presentable test blueprints.

CHALLENGES IN IMPLEMENTING A LICENSURE TESTING PROGRAM

Administering a large licensing examination program presents both technical and non-technical challenges. To keep within my allotted time, I will limit my remarks to five major areas:

1. Ensuring test validity in relation to occupational entry standards,
2. Developing test items from valid examination specifications,
3. Establishing legally defensible passing scores,
4. Implementing truth-in-testing legislation,
5. Maintaining test security.

There are, of course, many other challenges to which a licensing test program administrator must rise. These include contracting for test services, advocating program objectives at the legislative level, and budgeting for the many items of cost associated with a large examination program. Perhaps some of these matters will be addressed by other speakers or discussants.

I want to preface my remarks with the qualification that I am not an examination specialist. However, as administrator of a licensing program, I have full responsibility for two testing programs. During the past seven years, the Board has utilized the expertise of test specialists to provide the important function of bridging the gap between the conceptual and the psychometric aspects of testing issues.

Ensuring Test Validity in Relation to Occupational Entry Standards

The most fundamental challenge of any licensing examination is validity. A state licensing agency is legally charged with establishing a testing standard that is acceptably valid for the purpose of ensuring functional competence. Only if this is achieved will the standard provide a measure of protection to consumers of licensee services. Let's begin by discussing some of the legal issues and testing standards.

We were confronted with a most practical question: Will our test survive legal challenge? Licensing program administrators are not free to pursue their validity interests in a strictly psychometric manner. Our testing programs must exist in a fishbowl of public scrutiny, and we have to develop and administer them with an awareness of the provisions of applicable law. We must also consider testing standards that are formally associated with the law or which are likely to be used in court as criteria by which our program may be evaluated.

Title VII of the Federal Civil Rights Act of 1964, as amended in 1972, is one of several legislative provisions which deal with equal employment opportunities and is most often encountered. Essentially, this law prohibits discriminatory actions based upon an individual's race, religion, sex, or national origin.

Under Title VII, a potentially unlawful, discriminatory test is one that disproportionately fails a particular racial, religious, national-origin, or sex group. The existence of disproportionate differences in the passing rates of various groups is known as "adverse impact." If demonstrated to the satisfaction of the courts, adverse impact represents a prima facie case of discrimination. With this finding, a legal burden is placed on the test user to show the validity of the selection standard in question. Failure to make an acceptable showing implies discrimination.

In 1978, in order to implement Title VII, a group of federal agencies adopted the Uniform Guidelines on Employee Selection Procedures, commonly known as the "Uniform Federal Guidelines." Besides setting standards for hiring procedures, these guidelines are also intended to help licensing and certification boards, which they specifically mention.

The Guidelines prescribe procedures for the validation and use of tests, and, even though they lack the force of law, courts have looked to them for guidance in deciding employment discrimination cases. However, it is very doubtful that, nationwide, licensing and certification boards are legally obligated to heed the Uniform Guidelines. This is because the Guidelines are derived from Title VII of the Civil Rights Act, which focuses on employment rather than licensing. Several court cases outside California suggest that examinations are not most appropriately evaluated relative to the guidelines. The courts will recognize that licensing boards have greater latitude than do employers in determining what test content is relevant to occupational practice.

In California, the fact that Title VII probably doesn't apply to licensing standards is a moot point because the Uniform Guidelines on testing do. The California Fair Employment and Housing Act (our state labor code) specifically prohibits licensing and certification boards from employing any qualification procedure that has an adverse impact on protected groups, unless the procedure can be shown to be job related. Race, religion, creed, color, national origin or ancestry, sex, age, medical conditions, and physical handicap may all be used to define protected groups within the scope of this statute. In 1981, the Department of Fair Employment and Housing, which is charged with enforcement of the Fair Employment and Housing Act, adopted the Uniform Federal Guidelines for its investigations of alleged discrimination under state law. For California boards, therefore, adhering to the Uniform Guidelines is a means of avoiding violations of the state labor code.

We met the legal challenge of our examinations by requesting the Department of Consumer Affairs' Central Testing Unit conduct occupational analyses of both testing programs. Each study consisted of a literature review and an occupational analysis geared toward determining what tasks were being performed by the entry level licensee as well as the frequency and criticality of the task as related to safe and effective practice. The analysis was conducted in ways that would reveal any important variations in necessary competencies over work settings and specialty areas. Further, these studies ensured that (1) the Board's licensing examination programs effectively identify those candidates possessing the knowledge and skills necessary for safe practice, and (2) all license candidates are evaluated comprehensively by unbiased tests.

The occupational analysis research that supports our examinations was translated into carefully developed and well-documented examination specifications. The test plans reflect core, common requirements along with specifications for those unique requirements which are found to be of a highly consequential nature in particular settings. Thus, our tests emphasize core material, but will also assess unique knowledges and abilities if these have clear and significant implications for the public health and safety we are charged to help protect.

Developing Test Items from Valid Examination Specifications

I will now discuss some of the problems and methodologies associated with transforming a properly validated examination specification into an actual test.

Although our responsibility is publicly understood to be competence evaluation, our tests measure knowledge and ability. It is essential that the knowledges and abilities reflected in our tests be derived from careful consideration of licensee work roles.

This is quite a different approach to content validity than simply building tests that sample material from the curricula of preparatory courses required for licensure. The often significant differences between legitimate goals of educational programs and those of licensing programs must be recognized. Testing standards should not be developed to validate the content of academic and vocational training programs. Licensing tests must go beyond curricula and instructional validity to assess readiness to perform important occupational services normally expected of licensees.

Our goal in test development is to create items that discriminate between candidates who can perform competently in an entry level position and those who cannot. This is the ultimate priority of both the Board and the test service.

In order to ensure that the examination is measuring job-related skills, the test plans serve as (1) an effective guide for item writers in developing test items, and (2) a specific outline for test construction.

The item writers are current educators or practitioners possessing expertise in one or more of the content areas indicated in the test plan.

The greatest difficulty in item development is changing the focus of item writers from that of academic testing to one of job-relatedness. This problem is most often resolved through intensive training sessions by the testing service. Each item writer is thoroughly trained according to the test service item writing and psychometric guidelines. Additionally, each writer is given immediate feedback on each item written. All items are immediately reviewed by Board staff to determine whether they are job-related and reflect the most critical knowledge required for safe practice at entry level. Items are then reviewed by test service editors for content validity, style consistency and possible adverse impact. Items are further reviewed to ensure that no advantages are given to the test-wise candidates.

All items that meet the Board and testing service standards of quality are field tested at the next possible administration. Data are collected for each item. The statistics are reviewed by the testing staff and appropriate items are accepted into the item bank. Items that do not meet statistical criteria are returned to the item writers for revision or deletion.

Item development is a continuous process. The review, revision and deletion of items accepted into the item bank are critical and necessary activities to ensure that items reflect the current knowledge and skills required for safe practice.

After tests items were developed to meet the actual requirements of practice, the critical issue of standard setting was addressed. It is the Board's responsibility to ensure that candidates about to enter practice possess an acceptable level of competence for safe delivery of care. Accordingly, licensure is granted to candidates who have specified qualifications and who demonstrate an acceptable level of performance on the licensure examination. Passing standards must be defensible in terms of realistic board expectations on what constitutes an acceptable level of knowledge and ability.

Establishing Legally Defensible Passing Scores

Standard setting is a highly technical process which requires the leadership and expertise of the test service specialists. I will briefly discuss in non-technical terms the Board's involvement in the procedure. Technical questions should be referred to the chairperson or discussants.

Prior to September 1982, a norm-referenced approach was used to define a competent level of performance on our licensure examinations. The performance of a candidate was interpreted in terms of his or her relative standing within the group of candidates being tested at that administration. Such an approach can, however, result in changes in the definition of the level of competence if the population of candidates differs significantly from one administration to the next. In an attempt to ensure a more consistent definition of the acceptable level of competence, a criterion-referenced approach to standard setting was adopted by the Board. This approach involves interpreting candidate performance on the licensure examination in terms of a standard or "criterion" judged to represent the acceptable level of competence. The same standard, once established, was then applied to all subsequent examinations.

Passing scores are set by using Item Response Theory. A Rasch model equating technique is employed which is based on anchor items used in previous administrations. These passing scores are subjected to a "reality check" by comparing them with norm-referenced information. This combination of approaches to standard setting is a highly effective and legally defensible approach to standard setting. This method ensures a consistent standard of competence from examination to examination.

Implementing Truth-in-Testing Legislation

In the late 1970's, "truth-in-testing" became a legislative issue at the state and federal levels. At least 20 states have considered "truth-in-testing"

legislation. Three states--California, New York and Florida--have enacted laws. However, only the Florida statute covers licensing tests. The law referred to as a "sunshine" statute provides that "an applicant has the right to review his own completed examination... (and, further, that) ...the applicant is entitled to review his examination questions, answers, papers, grades and grading key...". The law applies to 25 licensing boards affiliated with Florida's Department of Professional Regulation.

Our Board believes that there are more cost effective, secure and equitable procedures than full disclosure for providing examinees with information about required testing standards.

The California Department of Consumer Affairs has recently adopted a policy which is an effective alternative. It is based upon careful review of (1) the needs and practices of a large number of the boards that compose our Department, (2) published standards related to the issue of examination information disclosure, and (3) advice offered to us by a sample of nationally known testing experts.

As I outline California's approach, keep in mind that not every board will find every recommendation equally feasible. Not only do licensed occupations vary greatly, but also boards differ in their occupational constraints and mandated priorities.

We believe that, although a licensing board's first task must be to provide a reliable, occupationally relevant examination, it should also provide adequate pre-test information to examinees. Some pre-examination information should include:

1. A test description that defines and weights the occupational subject areas and/or major performance tasks to be covered.

2. Sample items that illustrate the types of questions the examinee will encounter.

3. A list of the primary references upon which a board relies to establish its test key.

4. Brief discussion of test administration procedures (e.g., time limits), scoring and pass point.

5. Tips on effective test-taking.

We believe that post-examination diagnostic information is also essential. Each examinee should receive a pass-fail decision, not only for the test as a whole, but also for each part that is separately scored. Additional diagnostics should include:

1. A report of a failed candidate's total test score and part scores for important occupational subject areas.

2. Where feasible, an opportunity for the failed candidate to review, under close supervision, the test items and answer key. In most

cases, security and cost issues will preclude a complete item or key review.

3. Explanation of the scoring system and of what the scores imply concerning deficiencies in knowledge and performance. The following points are emphasized:

   a. Helping failed examinees identify their deficiencies in knowledge and skill is the single best way to preclude formal examination complaints, litigation, and demands for full disclosure of the test.

   b. Boards should supplement individual diagnostics by providing fine-grained statistics about examinee deficiencies to the schools that train examinees. This will promote curricula developments and instructional improvements.

Maintaining Test Security

One of the greatest challenges in the examination process for an administrator of a licensure testing program is establishing and maintaining security procedures. Examination security is a top priority. The absence of one step in the security procedure can lead to the loss of examination documents or materials. The loss of one test form is costly, both in terms of thousands of dollars and time. It further negates numerous hours of hard work by item writers, test specialists and board staff.

Our approach to this problem is intensive training sessions since we largely depend on the commitment and cooperation of others. The critical need to train examination proctors and monitor administration procedures at examination sites cannot be overemphasized.

The Board conducts structured training workshops for all examination proctors annually. Each participant is paid by the Board to encourage attendance. The Board's philosophy and security objectives are clearly defined. Written procedures for role assignments are distributed and discussed. Audio-visual aids are also utilized. Additionally, special sessions are scheduled at the examination site prior to the commencement of the administration. Written assigned responsibilities and security measures are reviewed. This provides the opportunity to reemphasize the significance of maintaining all aspects of the security procedures.

Board staff is present at each examination administration to monitor and assess security procedures. Staff is also available to make crucial decisions when warranted.

I have attempted to focus on some of the unique and key challenges required in my role as administrator of two licensure examination programs. The competence of the test specialist is paramount to the Board's ability to meet its statutory mandates in licensure examinations. I believe that boards are and will increasingly be held accountable for administering truly equivalent test forms that conform to publicly presentable test blueprints.